

《契约理论》课程提纲

聂辉华

Contract Theory

Spring 2025

Compulsory for graduates in Major of Business Economics

Instructor: Prof. Huihua NIE

Office hours: by appointment

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Credit hour: 3

Course Meet: 17/2/2025

Room: 人大中关村校区立德楼0505教室

Tuesday: 2:00– 4:30 pm

Final exam date: TBA

Course Website:

<http://www.niehuihua.com> (白鲨在线)

WeChat public account: Nie_huihua (聂辉华)

Textbook

Required:

(BD) Bolton, Patrick, and Mathias Dewatripont, 2005, *Contract Theory*, MA: MIT Press ([美]帕特里克·博尔顿、[比]马赛厄斯·德瓦特里庞, 费方域、蒋士成翻译, 格致出版社, 2008年);

(Y) 杨瑞龙主编:《企业理论: 现代观点》, 中国人民大学出版社2005年。

Optional:

(MP) Macho-Stadler, Ines and J.David Perez-Castrillo, 2001, *An Introduction to the Economics of Information: Incentives and Contracts*, New York: Oxford University Press (因内思·马可一斯达德勒, 大卫·佩雷斯-卡斯特里罗,《信息经济学引论: 激励与合约》, 管毅平翻译, 上海财经大学出版社, 2004年);

Gibbons, Robert, John Roberts, 2012, *The Handbook of Organizational Economics*, Princeton University Press;

聂辉华, 2015,《跟<西游记>学创业——一本人人都要读的管理秘籍》, 中国人民大学出版社;

聂辉华, 2021,《一切皆契约: 真实世界中的博弈与决策》, 上海三联书店。

Prerequisites

This course should be aimed to be international-standard. Also, it is an upper stream economics class in microeconomics and institutional economics. I will assume that you fully understand the fundamentals of economics principles, and know advanced microeconomics and middle-level game theory.

Course Objectives

The aim of this course is to offer the framework of contract theory covering both theoretical models and its applications in markets, firms, not-for-profit organizations and governments. I start by introducing the main theoretical concepts and basic framework. Then I give the fundamental models of moral hazard, adverse selection, and hold up in static and dynamic setting, respectively. If time permits, I will introduce recent developments in contract theory, including collusion, reputation, and relational contracts.

Preparing for Class

It's better for you to read the relevant chapter(s) or papers in ahead of the time, which should be great helpful for you understanding the content of lectures.

Grading

There will have one final exam, a number of homework assignments. The homework assignments include all the review questions corresponding to the chapters that we cover in the lectures. The answers that just simply copy those at the back of the textbook will be scored zero. Grades will be determined as follows:

Homework 50%
Final Exam 50%

Policies

I don't accept any excuse for the missing of exams unless you can provide proof of emergency such as serious illness. If you miss the exam for any reason that does not qualify as a proven emergency, you get zero. You can work with your classmates on the homework assignments, but you are not allowed to copy someone else's work.

Course Schedule

Note: *is optional.

I Introduction

References

Y ch.2

MP ch.1

BD ch.1

Hart, Oliver, and Bengt Holmstrom, 1987, "The Theory of Contracts", in T. Bewley (ed.), *Advanced in Economic Theory*, New York: Cambridge University. Press, Ch.3, 71-155.

II Complete Contracts I: Static Bilateral Contracting

(i) Moral Hazard I: Single Task

- standard model
- basic model: two types
- special model: mean-variance approach
- general model: first-order approach *
- application: sharecropping contracts, debt financing *

References

Y ch.2

MP ch.2, ch.3

BD ch.4.5

Mirrlees, James, 1999, "Theory of Moral Hazard and Unobservable Behavior: Part I", *Review of Economic Studies*, 66: 3-22.

Holmstrom, Bengt, 1979, "Moral Hazard and Observability", *Bell Journal of Economics*, 13:324-340.

Grossman, S. and O. Hart, 1983, "An Analysis of the Principal-Agent Problem", *Econometrica*, 51: 7-45.

(ii) Moral Hazard II: Multi-tasks

- multi-tasks
- application: incentive system of the firm *

References

Y ch.2

BD ch.6.2

Holmstrom, Bengt and Paul Milgrom, 1991, "Multi-task Principal-Agent Analyses: Incentive Contracts, Asset Ownership and Job Design", *Journal of Law, Economics and Organization*, 7:24-52.

Holmstrom, Bengt and Paul Milgrom, 1994, "The Firm as an Incentive System", *American Economic Review*, 84(4): 927-991

聂辉华, 2006, 《取消农业税对乡镇政府行为的影响——一个多任务委托代理模型》, 《世界经济》, 第 8 期

(iii) Adverse Selection I: Screening

- typical case: lemon market
- basic model: nonlinear pricing
- when principles compete for agents *
- general model: a continuum types *
- applications: credit rationing, optimal income taxation *

References

Y ch.2

MP ch.4

BD ch.6.2

Akerlof, G., 1970, “The Market for Lemons: Quality Uncertainty and Market Mechanism”, *Quarterly Journal of Economics*, 84: 488-509.

Mirrlees, James, 1971, “An Exploration in the Theory of Optimum Income Taxation”, *Review of Economic Studies*, 38: 175-208.

Maskin, E. and J. Riley, 1984, “Monopoly with Incomplete Information”, *Rand Journal of Economics* 15: 171-196.

(iv) Adverse Selection II: Signaling

- basic model: Spence’s model
- equilibrium refinement: intuitive criterion
- application: pecking-order theory of finance *

References

Y ch.2

MP ch.5

BD ch.3

Spence, Michael, 1973, “Job Market Signaling,” *Quarterly Journal of Economics*, 87(3): 355-373.

Cho, I. and DM Kreps, 1987, “Signaling Games and Stable Equilibria”, *Quarterly Journal of Economics*, 102(2): 179-221.

(v) Combining Adverse Selection and Moral Hazard

- adverse selection followed by moral hazard
- moral hazard followed by adverse selection

References

Laffont, Jean-Jacques, David Martimort, 2001, *The Theory of Incentives: The Principal-Agent Model*, Princeton University Press

Laffont, J.-J. and J. Tirole, 1986, “Using Cost Observation to Regulate Firms”, *Journal of Political Economy*, 94(3): 614-641.

III Complete Contracts II: Static Multilateral Contracting

(i) Moral Hazard III: Multiply Agents

- unobservable individual outputs: free-ride problem
- observable individual outputs: relative performance evaluation
- tournaments *

References

BD ch.8

Alchian, Armen and Demsetz, Harold, 1972, "Production, Information Costs and Economic Organization", *American Economic Review*, 62(50): 777-795.

Holmstrom, Bengt, 1982, "Moral Hazard in Team", *Bell Journal of Economics*, 10:74-91.

Lazear, E., and S. Rosen, 1981, "Rank-Order Tournament as Optimal Labor Contracts", *Journal of Political Economy*, 89: 841-864.

李金波、聂辉华和沈吉, 2010, 《团队生产、集体声誉和分享规则》, 《经济学 (季刊)》, 9(3): 941-960

(ii) Adverse Selection IV

- bilateral trading
- auction: private values
- auction: winner's curse

References

BD ch.7

Myerson, R., and M. Satterthwaite, 1983, "Efficient Mechanisms for Bilateral Trading", *Journal of Economic Theory*, 29: 265-281.

Klemperer, Paul, 1999, "Auction theory: A guide to the literature", *Journal of Economic Surveys*, 13(3): 227-286.

Klemperer, Paul, 2004, *Auctions Theory and Practice*, New Jersey: Princeton University Press.

(iii) Collusion

- background
- basic insights
- an example
- adventures
- multi-principals *

References

Tirole, J., 1986, "Hierarchies and Bureaucracies: On the Role of Collusion in Organizations", *Journal of Law, Economics, and Organization*, 2(2): 181-214.

Bernheim, B. Douglas, and Michael D. Whinston, 1986, "Common Agency", *Econometrica*, 54 (4): 923-942.

Dixit, Avinash, 1996, *The Making of Economic Policy: A Transaction Cost Politics Perspective*. Cambridge, MA: MIT Press.

聂辉华、李金波, 2006, 《政企合谋与经济发展》, 《经济学 (季刊)》, 6(1): 75-90

聂辉华、张雨潇, 2015, 《分权、集权与政企合谋》, 《世界经济》, 第6期

聂辉华, 2013, 《政企合谋与经济增长: 反思“中国模式”》, 中国人民大学出版社

IV Complete Contracts III: Repeated Bilateral Contracting

(i) Moral Hazard IV: Dynamics

- career concern: reputation
- moral hazard and renegotiation

References

BD ch.10

Holmstrom, B., 1999, “Managerial Incentive Problems: A Dynamic Perspective”, *Review of Economic Studies*, 66(1): 169-182.

Fudenberg, D. and J. Tirole, 1990, “Moral hazard and renegotiation in agency contracts”, *Econometrica*, 58: 1279-1320.

(ii) Adverse Selection V: Dynamics

- Coasian dynamics
- adverse selection and renegotiation
- application: soft budget constraint

References

BD ch.9

Hart, Oliver and J. Tirole, 1988, “Contract Renegotiation and Coasian Dynamics”, *Review of Economic Studies*, 55: 509-540.

Kornai, J., 1979, “Resource-Constrained versus Demand-Constrained Systems”, *Econometrica*, 47(4): 801-820

V Incomplete Contracts

(i) Transaction-cost Economics *

- the governance of contracts
- discrete structural alternatives
- TCE and behavioral economics

References

Y ch.3

Williamson, Oliver E., 1975, *Markets and Hierarchies: Analysis and Antitrust Implications*, New York: Macmillan.

Williamson, Oliver E., 1985, *The Economic Institute of Capitalism*, New York: Free Press.

Williamson, Oliver E., 1996, *The Mechanism of Governance*, New York: Oxford Univ. Press.

Williamson, Oliver E., 2002, “Empirical Microeconomics: Another Perspective”, in *The Economics of Choice, Change, and Organization*, Mie Augier and James March, eds., Brookfield, Vt.: Edward Elgar, forthcoming.

聂辉华, 2004, “交易费用经济学: 过去, 现在和未来”, 《管理世界》, 第 12 期

Zhang, Yuxiao, Mingyue Fang, Ting Jiang, and Huihua Nie, 2016, “Contractual Hazard, Political Hazard and FDI Ownership Structure in Joint-venture Enterprises in China”, *Review of Development Economics*, 20(1): 14-24

(ii) GHM Model

- hold up model
- property rights and the theory of the firm

- recent development *

References

Y ch.4

Grossman, Sanford, and Oliver Hart, 1986, “The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration”, *Journal of Political Economy*, 94:691-719.

Hart, Oliver and John Moore, 1990, “Property Rights and Nature of the Firm”, *Journal of Political Economy*, 98(6): 1119-1158.

Hart, Oliver, 1995, *Firm, Contract and Financial Structure*, New York: Oxford Univ. Press.

聂辉华, 2008, 《契约不完全一定导致投资无效率吗? ——一个带有不对称信息的敲竹杠模型》, 《经济研究》, 第 2 期

杨瑞龙、聂辉华, 2006, 《不完全契约理论: 一个综述》, 《经济研究》, 第 2 期

聂辉华, 2011, 《不完全契约理论的转变》, 《教学与研究》, 第 1 期

聂辉华, 2017, 《契约理论的起源、发展和分歧》, 《经济社会体制比较》, 第 1 期

(iii) Relational Contracts

- static implicit contracts
- dynamical implicit contracts

Bull, C., 1987, “The existence of self-enforcing implicit contracts”, *Quarterly Journal of Economics*, 102: 147-159.

Baker, George, Roberts Gibbons and Kevin Murphy, 2002, “Relational Contract and the Theory of the Firm”, *Quarterly Journal of Economics*, 117: 39-83.

Levin, Jonathan, 2003, “Relational Incentive Contracts”, *American Economic Review*, 93 (3): 835-847